

Course: Earth Sciences 11

Course Length: 10 months
(approx. 120 hours)

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Course Curriculum

The curriculum for this course is built around the following Big Ideas:

<p>Earth materials are changed as they cycle through the geosphere and are used as resources, with economic and environmental implications.</p>	<p>Plate tectonic theory explains the consequences of tectonic plate interactions.</p>	<p>The transfer of energy through the atmosphere creates weather, and this transfer is affected by climate change.</p>	<p>The distribution of water has a major influence on weather and climate.</p>	<p>Astronomy seeks to explain the origin and interactions of Earth and its solar system.</p>
<p>Students are expected to know the following:</p> <ul style="list-style-type: none"> • Properties of earth materials: <ul style="list-style-type: none"> • minerals • igneous rocks • sedimentary rocks • metamorphic rocks • geologic resources • Surface and internal processes of the rock cycle • Economic and environmental implications of geologic resources within B.C. and globally • Evidence that supports plate tectonic theory • Factors that affect plate motion • First Peoples knowledge of local plate tectonic settings and geologic terrains • The hydrologic cycle • Changes in the composition of the atmosphere due to natural and human causes • Weather as the interaction of water, air, and energy transfer • Solar radiation interactions and impacts on the energy budget • Evidence of climate change • First Peoples knowledge of climate change and interconnectedness as related to environmental systems • Water as a unique resource • First Peoples knowledge and perspectives of water resources and processes • Properties of the ocean and the ocean floor • Local and global ocean currents • Influences of large bodies of water on local and global climates • Effects of climate change on water sources • The nebular hypothesis (explanation of the formation and properties of our solar system) • Earth as a unique planet within its solar system • Stars as the center of a solar system • Impacts of the Earth-moon-sun system • Application of space technologies to the study of changes in Earth and its systems 				

Assessment of Learning

Category	Weighting
Learning Guides	35%
Unit Projects	25%
Unit Exams	40%

Resources

- Textbook not required. All resources are available online.
- Scientific calculator required.

Course Content

Each unit contains formative assessments of quizzes, a Learning Guide and an Inquiry Project, in addition to a summative assessment of a Unit Test.

Students must submit the Unit 1 Learning Guide or Unit Project to be activated in the course.

There are 8 Units in this course:

Unit 1: Astronomy

Unit 2: Solar System

Unit 3: Earth and Moon

Unit 4: Plate Tectonics

Unit 5: Weathering and Erosion

Unit 6: Minerals and Rocks

Unit 7: Oceanography

Unit 8: Atmosphere

Keys to Success

Throughout the course, students are expected to:

- contact the teacher by email or phone when help is needed, or questions arise
- be actively engaged and submitting work on a regular basis
- inform the teacher when they will be inactive for two or more weeks.
- be aware that if they are inactive in a course for four or more weeks they may be removed from that course
- check their email at least twice a week
- create and submit completed solutions for all activities in the unit/chapter before requesting a test.
- check that their work and tests have been marked.
- make appointments to write tests at least 2 school days in advance. Tests must be supervised by a parent or guardian.

Plagiarism

Plagiarism is unacceptable under any circumstance. You are expected to create authentic work which demonstrates your own understanding. If you are caught cheating, plagiarizing, or submitting AI-generated responses within this course, you may be removed from the course.